

REMARKS

Claims 15-36 are pending in this application. By this Amendment, claims 15, 16 and 25 are amended and new claims 35 and 36 are added.

Claims 15 and 25 are amended to recite "wherein the copolymer does not include a fluorinated alkyl group." Support for the amendments may be found throughout the specification, and in particular the Examples, all of which refer to polydimethylsiloxane copolymers including an alkyl group having a carbon number of 12 or more, and not containing a fluorinated alkyl group.

Claim 16 is amended to replace "said" with "the."

Applicants submit that the added limitation in claims 15 and 25 has basis in the original disclosure because alternative elements are positively recited, and thus may be explicitly excluded in the claims (M.P.E.P. §2173.05(i)). A person of ordinary skill in the art would have recognized that because embodiments including a fluorinated alkyl group and embodiments not including a fluorinated alkyl group are described in the specification, the specification necessarily describes the embodiments remaining in view of the limitation, i.e., embodiments not including a fluorinated alkyl group.

Claims 35 and 36 depend from claims 20 and 19, respectively, and further recite specific azo-group-containing polydimethylsiloxane amides (claim 35) or polydimethylsiloxane compounds containing a polymerizable vinyl group at one end thereof (claim 36), vinyl monomers containing the long chain alkyl group having a carbon number of 12 or more and vinyl monomers. Support for these claims may be found at least at page 9, line 4 to page 14, line 15 of the original specification.

No new matter is added.

Applicants appreciate the courtesies shown to Applicants' representative by Examiners Nelson and Sample in the June 11, 2009 interview. Applicants' separate record of the substance of the interview is incorporated into the following remarks.

Rejection Under 35 U.S.C. §102(b)

Claims 15-18, 20-28 and 30-34 are rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Kazuyoshi (JP 05-185757). Applicants respectfully traverse this rejection.

Claims 15 and 25 are not anticipated by Kazuyoshi because Kazuyoshi does not describe a copolymer that *does not* include a fluorinated alkyl group, as required by claims 15 and 25. Claims 15 and 25 recite a heat-resistant lubricity imparting coating agent containing a polydimethylsiloxane copolymer, wherein the copolymer does not include a fluorinated alkyl group.

Kazuyoshi, on the other hand, describes a thermal transcription material comprising a synthetic resin which has at least a monomer (A) comprising a fluorinated alkyl group and a monomer (B) comprising a polyorganosiloxyl group (paragraph [0009]). Throughout Kazuyoshi, the synthetic resin containing a monomer (A) comprising a fluorinated alkyl group is described as an essential component of the transcription material (see, for example, paragraphs [0009], [0032], [0036], and the Examples).

The Patent Office alleges that Kazuyoshi describes a sticking avoidance layer for the back of a substrate which has an ink layer formed on the opposite side, wherein the anti-stick coating comprises a polydimethylsiloxane copolymer and an alkyl group with more than 12 carbon atoms. The Patent Office specifically cites monomer (D) of Kazuyoshi as allegedly corresponding to the feature "including a long chain alkyl group having a carbon number of 12 or more" required by claims 15 and 25. Applicants respectfully submit that as discussed above, Kazuyoshi describes that the polyorganosiloxyl group containing monomer (B) and the

fluoroalkyl group containing monomer (A) are each essential components of the resin. The resins described by Kazuyoshi thus must contain a fluorinated alkyl group, irrespective of the presence or absence of monomer (D).

Kazuyoshi thus describes a resin comprising a copolymer that is structurally different from the copolymer recited in claims 15 and 25. Kazuyoshi therefore does not anticipate claims 15 and 25. Because claims 16-18, 20-24, 26-28 and 30-34 depend from claim 15 or claim 25, these claims are also not anticipated by Kazuyoshi for at least the same reasons.

Applicants request withdrawal of the rejection.

Rejection Under 35 U.S.C. §103(a)

Claims 19 and 29 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Kazuyoshi, as applied to claims 15 and 25 above, in view of Yokoyama (U.S. Patent No. 6,440,572). Applicants respectfully traverse this rejection.

Claims 19 and 29 are not obvious over the cited references because the combination of references fail to provide any reason or rationale to have combined Kazuyoshi and Yokoyama to have arrived at the coating agent recited in claims 15 and 25, from which claims 19 and 29 depend, respectively.

Kazuyoshi is cited as above. The Patent Office admits that Kazuyoshi does not describe graft polymerization as an alternative to block copolymerization. Yokoyama is cited as allegedly describing this feature.

Claims 19 and 29 depend from and include the limitations of claims 15 and 25, respectively. As discussed above, Kazuyoshi fails to describe the features of claims 15 and 25. Specifically, Kazuyoshi fails to describe a heat-resistant lubricity imparting coating agent containing a polydimethylsiloxane copolymer including a long chain alkyl group having a carbon number of 12 or more, wherein the copolymer does not include a fluorinated alkyl group. Yokoyama does not remedy these deficiencies of Kazuyoshi.

Further, Yokoyama describes monomers having long chain alkyl groups, among a very broad group of monomers that can be copolymerized with the reactive silicone (column 3, line 39 to column 4, line 26), but does not show any examples of a polydimethylsiloxane copolymer including a long chain alkyl group having a carbon number of 12 or more, as required by claims 15 and 25. Yokoyama describes that all of the monomers described therein are interchangeable, and would be expected to impart similar properties to the copolymers. As shown in the Examples and Comparative Examples of the present specification, however, the polydimethylsiloxane copolymers recited in claims 15 and 25 impart surprisingly and unexpectedly superior properties to coating agents.

Comparative Examples 1 and 4 of the present application lack the long chain alkyl group having a carbon number of 12 or more. Coating materials comprising these polymers had poor performance regarding dropped chips, and consequently resulted in defective printing (paragraph [0132]).

Comparative Examples 2 and 5 of the present application lack the silicone component (i.e., polydimethylsiloxane). Coating materials containing these polymers had poor performance regarding lubricity, and consequently resulted in defective printing (paragraph [0129]).

Comparative Example 3 comprises a combination of the polymer of Comparative Examples 1 and 2, and Comparative Example 6 comprises a combination of the polymer of Comparative Examples 4 and 5. However, the compatibility between these polymers is poor, and thus a heat-resistant lubricious protective layer could not be formed therefrom.

In contrast, a heat-resistant lubricity imparting coating agent as recited in claims 15 and 25, unexpectedly does not suffer such disadvantages (see paragraphs [0127]-[0135] of the specification). Examples 1 to 20 show that such coating materials possess superior properties regarding chipping and lubricity, relative to Comparative Examples 1-6, as discussed above.

There would have been no reason or rationale for a person of ordinary skill in the art to have modified the copolymer described by Kazuyoshi with any particular copolymer described by Yokoyama to have arrived at the heat-resistant lubricity imparting coating agent containing the polydimethylsiloxane copolymer recited in claims 15 and 25 for this additional reason.

Claims 15 and 25 are thus patentable over Kazuyoshi in view of Yokoyama. Because claims 19 and 29 depend from and include the limitations of claims 15 and 25, respectively, they are thus patentable over Kazuyoshi and Yokoyama for at least the reasons discussed above.

Applicants request withdrawal of the rejection.

New Claims 35 And 36

New claims 35 and 36 depend from claims 20 and 19, respectively, and are thus patentable for at least the reasons discussed above regarding claims 19 and 20.

Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 15-36 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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